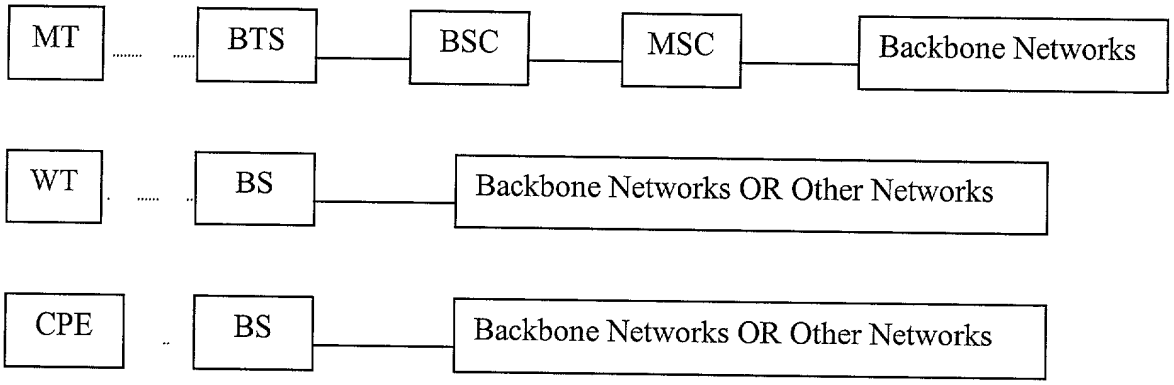
MT: Mobile Terminal, BTS: Base Transceiver System, BSC: Base Station Controller, MSC: Mobile Switching Center
WT: Wireless Terminal, BS: Base Station
CPE: Customer Premier Equipment



1. **All these MT and WT and CPE are of SINGLE air-interface or restricted multiple interfaces**
2. **Each BS or BTS only supports one single air-interface**
3. **The wireless networks are "circuit-switched" and "time-division-multiplex" (TDM)**

(conventional and existing wireless network architecture)

FIG.1

09/27/05, 08:19:08

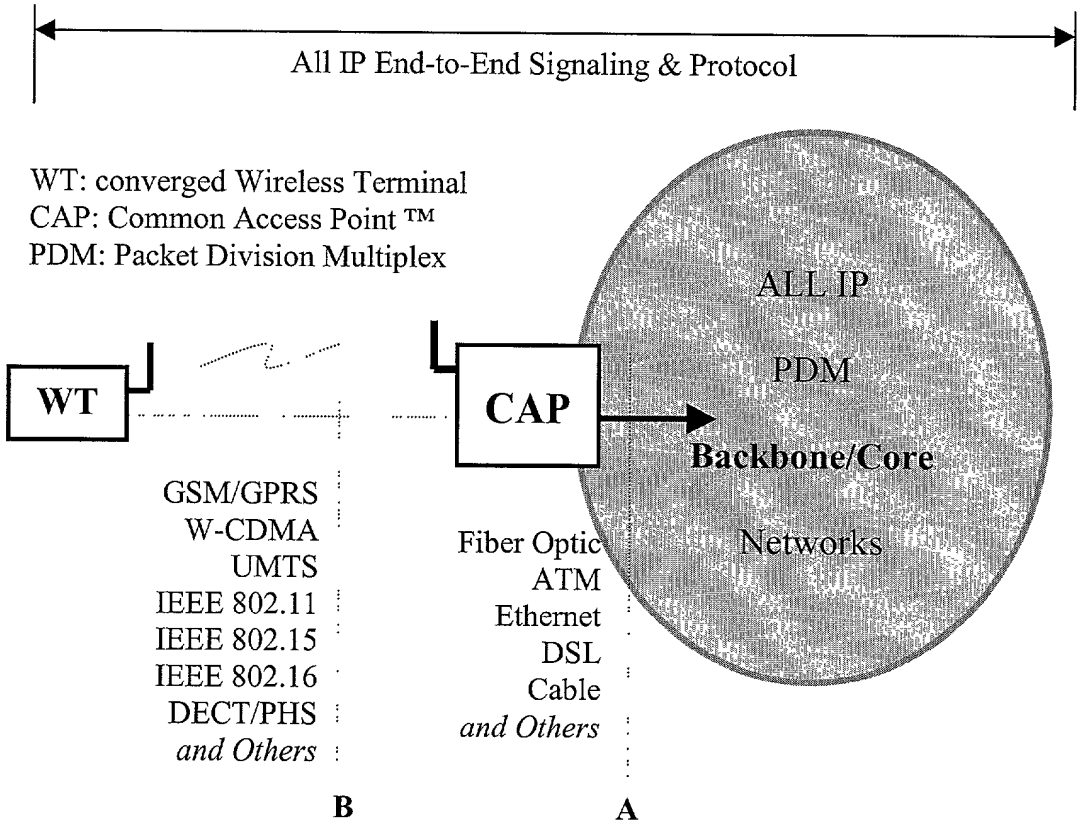


FIG.2

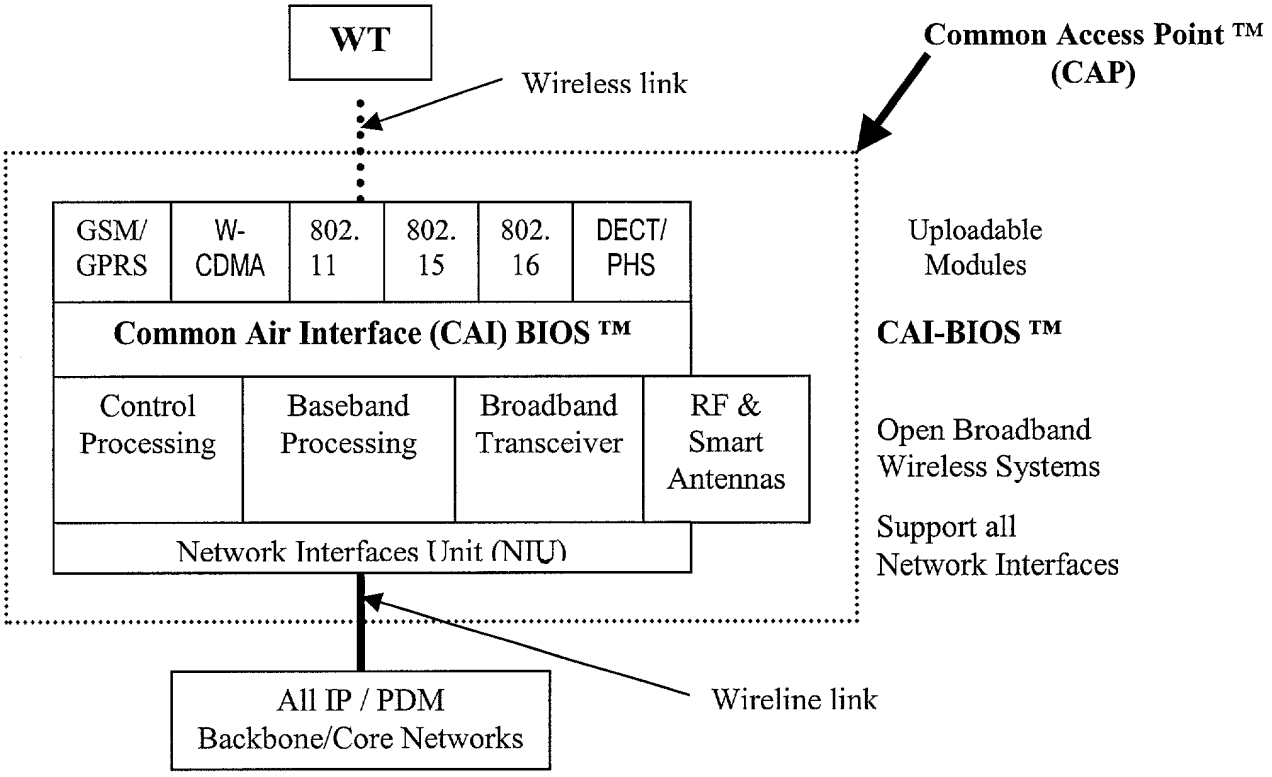

WT
Wireless link
Common Access Point ™
(CAP)
GSM/ GPRS
W- CDMA
802. 11
802. 15
802. 16
DECT/ PHS
Uploadable Modules
Common Air Interface (CAI) BIOS ™
CAI-BIOS ™
Control Processing
Baseband Processing
Broadband Transceiver
RF & Smart Antennas
Open Broadband Wireless Systems
Support all Network Interfaces
Network Interfaces Unit (NIU)
All IP / PDM Backbone/Core Networks
Wireline link

FIG.3

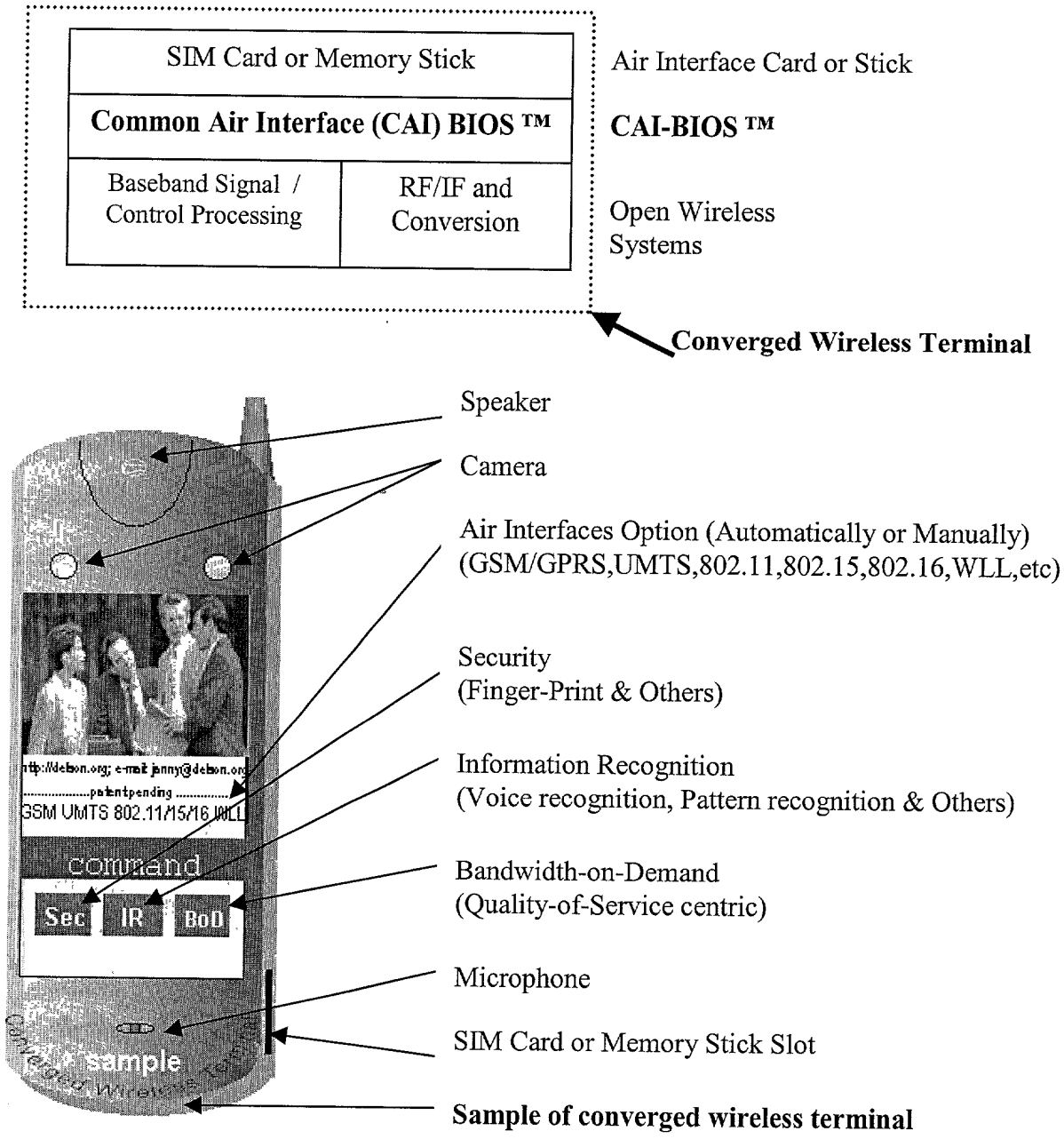

SIM Card or Memory Stick
Common Air Interface (CAI) BIOS ™
Baseband Signal / Control Processing
RF/IF and Conversion
Air Interface Card or Stick
CAI-BIOS ™
Open Wireless Systems
Converged Wireless Terminal
Speaker
Camera
Air Interfaces Option (Automatically or Manually)
(GSM/GPRS,UMTS,802.11,802.15,802.16,WLL,etc)
Security
(Finger-Print & Others)
Information Recognition
(Voice recognition, Pattern recognition & Others)
Bandwidth-on-Demand
(Quality-of-Service centric)
Microphone
SIM Card or Memory Stick Slot
Sample of converged wireless terminal
GSM UMTS 802.11/15/16 WLL
command
Sec
IR
BoD
sample

FIG.4